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ABSTRACT

The results of a federal audit of attendance and enrollment data from the Boston Public School System are summarized in this paper. The General Accounting Office (GAO) conducted the audit to determine the accuracy of the data submitted to the U.S. District Court of Massachusetts for use in implementing the Boston school desegregation plan and for securing certain federal funds. The Boston schools' enrollment projections were somewhat higher than the GAO's because the school system counted students who attended school only one day of the previous year. The GAO also discovered that the racial composition of 46 of the 58 schools it visited did not meet the federal guidelines. However, this federal agency decided that the government would not be adversely affected if the school system's figures were used to secure federal funds. (Author/DS)

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REPORT OF THE COMPTROLLER GENERAL OF THE UNITED STATES

Student Enrollment And Attendance Reports In The Boston Public School System Are Substantially Accurate

Department of Health, Education, and Welfare

GAO tested the validity of enrollment and attendance figures reported by the Boston School Department and found the figures to be substantially accurate. Accordingly, the Federal Government would not be adversely affected if the school department figures were used in securing funds under the two Federal programs affected by enrollment and attendance data.

The report also indicates that the racial composition of 46 of the 58 Boston public schools GAO visited did not meet Federal court-ordered guidelines.

EA 008 496

HRD-76-146

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JULY 16, 1976

COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

B-164031(1)

The Honorable James A. Burke
House of Representatives

Dear Mr. Burke:

This report, issued in response to your request of October 23, 1975, discusses the results of our tests of the accuracy of student enrollment and attendance figures reported by the Boston School Department. We found the figures to be substantially accurate.

As you instructed, we did not discuss this report with or obtain formal comments from agency or school department officials.

Sincerely yours,

Comptroller General
of the United States

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COMPTROLLER GENERAL'S
REPORT TO THE
HONORABLE JAMES A. BURKE
HOUSE OF REPRESENTATIVES

STUDENT ENROLLMENT AND ATTENDANCE REPORTS IN THE BOSTON PUBLIC SCHOOL SYSTEM ARE SUBSTANTIALLY ACCURATE

Department of Health, Education, and Welfare

D I G E S T

Because of the controversy over the validity of enrollment data submitted by the Boston School Department to the U.S. District Court for Massachusetts for use in implementing the desegregation plan for the Boston public school system, and because enrollment figures are used in securing certain Federal funds, GAO was asked to audit this data.

GAO tested the validity of the projected enrollment figures provided to the Federal court by the Boston School Department for the first day of school year 1975-76. GAO estimated that the projected enrollment figure was 1.4 percent lower than the figure reported by the school department. (See p. 6.)

However, GAO questioned the school department's criterion of including students in projected enrollment merely because they attended school 1 day in the previous year. Excluding students whose poor attendance indicated they might have left the school system, GAO estimated that the projected enrollment was 2.3 percent lower than the number reported by the school department. (See p. 6.)

In testing the school department's actual enrollment figure as of December 31, 1975, GAO estimated that there were 1.5 percent fewer students enrolled than the number reported by the school department. (See p. 11.)

Again excluding students whose poor attendance indicated they might have left

the school system, GAO estimated that there were 23.1 percent fewer students enrolled than the number reported by the school department. (See p. 12.)

A Federal court order contained desegregation guidelines for the schools in the Boston public school system. GAO noted that the racial composition of 46 of the 58 schools it visited did not meet the Federal guidelines. (See p. 14.)

GAO tested the accuracy of the school department's attendance figures and found that although many errors had been made in reporting attendance, the errors tended to offset each other. As a result, the effect of the errors on the average daily attendance reported by the school department was minimal. (See p. 22.)

On the average about 18 percent of the students enrolled in the Boston public schools were absent daily. GAO believes that this absentee rate is generally the result of the same students missing school regularly. (See p. 22.)

Based on the results of its tests on reported enrollment and attendance figures, GAO believes that the Government would not be adversely affected if the school department's figures were used in securing Federal funds. Of the Federal funds received by the school department, only funds under the impact aid program (assistance to schools affected by Federal activities) and title II of the Elementary and Secondary Education Act (assistance to schools for library resources) would be affected by enrollment or attendance statistics.

In accordance with Congressman Burke's request, GAO did not discuss this report or obtain formal comments from the school department or HEW.

CHAPTER 1

INTRODUCTION

In June 1974, the U.S. District Court for Massachusetts ordered the Boston public schools (school department) to implement a desegregation plan developed by the Commonwealth of Massachusetts. This plan, referred to as Phase 1, was implemented starting in September 1974. At the direction of the Federal court, planning continued during school year 1974-75 to develop a long-range desegregation plan to be implemented in September 1975. Various plans were submitted to the court by the school department and other interested parties.

Because of the number and complexity of the plans submitted, the Federal court appointed a panel to hold hearings and recommend a desegregation plan. It also appointed two education experts to assist the panel. After obtaining comments from various parties, the panel recommended adopting a plan which incorporated elements of the various plans that were submitted as well as proposals of their own. The Federal court modified the plan and ordered the school department to implement it as Phase II starting in September 1975.

The Phase II plan established nine school districts within Boston--eight community school districts and one citywide district. (See app. I.) All students living within a community school district, a designated area of the city, are entitled to attend the public schools in that district as seat capacities allow. The citywide district consists of schools offering distinctive programs of instruction which serve the needs of students residing anywhere in Boston. Within the 9 districts there are a total of 19 high schools, 28 middle schools, and 117 elementary schools.

The Phase II plan also required compulsory busing of students to achieve racially balanced schools. On the basis of data provided by the school department, the Federal court estimated that 21,000 students in grades 1 through 12 would have to be bused. In May 1976 the school department reported that 21,383 students in grades 1 through 12 were being bused. An additional 3,222 students, of which 2,046 were kindergarten students, were being transported to and from school by taxicab.

Implementation of the Phase II plan was based on the school department's projected enrollment--the number of students expected to enter school in September 1975. The school department first submitted a projected enrollment figure to the Federal court in May 1975 and continued to update this figure until the beginning of school in September 1975.

Although the school department has a department of statistics which compiles enrollment information for State and Federal reporting purposes, a separate group within the school department was appointed to prepare and report Phase II enrollment and attendance data to the court. This group, called the office of implementation, prepares reports on projected enrollment, actual enrollment, and daily attendance. These reports show the racial breakdown 1/ for individual schools and school levels (i.e., high, middle, and elementary) as well as a systemwide breakdown by racial group. This information is provided to the court and is available to the public.

In late September 1975 considerable controversy arose over the validity of the Boston School Department's figures submitted to the Federal court. On September 16 the school department reported that out of a projected enrollment of 76,127 students in grades 1 through 12, only 54,511, or about 72 percent, had attended classes during the first week of school. This prompted charges that either the projected enrollment figures used to assign students were inflated or students had left the Boston school system to avoid being bused. School department figures reported for projected enrollment, actual enrollment, and attendance were questioned by the media, the Federal court, and others. The fact that kindergarten students (about 10,000) were included in some reports and excluded from others added to the controversy. (See app. II.)

Because of the questions that arose about (1) the accuracy of the enrollment data used in developing the Phase II desegregation plan, (2) the enrollment and attendance data reported to the Federal court during the plan's implementation, and (3) the fact that enrollment figures are used in securing certain Federal funds, Congressman James A. Burke asked us to audit this data. (See app. III.)

SCOPE OF AUDIT

Our audit was made primarily at the school department headquarters. However, we also visited 60 schools; analyzed student attendance records; and interviewed administrators,

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1/Racial breakdown for these reports is "white," "black," and "other." The school department's information system provides for seven racial categories--black, white, oriental, Spanish-black, Spanish-white, American Indian, and other nonwhite. The last five groups are classified as "other" by the school department and by us in this report.

principals, and teachers within the school system. We contacted officials in various other public, private, and parochial schools when necessary.

Because kindergarten children are not bused, we limited our audit to information pertaining to students in grades 1 through 12.

Using acceptable statistical sampling techniques (see app. IV), we tested the validity of the following data reported by the school department:

--The September 8, 1975, projected enrollment of 76,127 students.

--The December 31, 1975, actual enrollment of 67,146 students.

--The number of students officially discharged from the Boston school system between September 8 and December 31, 1975.

--The 2,454 students who had not reported to school as of December 31, 1975, but were included in the projected enrollment.

CHAPTER 2

PROJECTED ENROLLMENT

The school department provided the Federal court with a projected enrollment figure of 76,127 students in grades 1 through 12 for September 8, 1975, the first day of school year 1975-76. We tested the validity of this figure using acceptable statistical sampling techniques and found no major difference between it and our estimate of the projected student enrollment. Our estimate was 1.4 percent lower than the school department's figure.

We questioned the school department's criterion of including students in projected enrollment merely because they attended school 1 day in the previous year. Excluding students with extremely poor attendance records for the prior school year but who were included in the school department's projected enrollment, our estimate of the projected enrollment was 2.3 percent lower than the school department's figure.

ANALYSIS OF PROJECTED ENROLLMENT

School department officials told us the projected enrollment figure for school year 1975-76 consisted of students who

- --had attended a Boston public school and returned an application indicating their school assignment preference,
- --had not attended a Boston public school in the previous year but had applied for admission, or
- --had attended a Boston public school for at least 1 day the previous year but had not returned an application indicating their school assignment preference.

In April 1975 the school department began a program to develop projected enrollment for school year 1975-76. School principals were given an October 1974 enrollment list and instructed to remove the names of students who had not attended school at all during school year 1974-75. In addition, the school department removed the names of expected graduates and prekindergarten and postgraduate students. These adjustments resulted in a May 1975 projection of 74,252 students expected to enter grades 1 through 12 in September 1975.

Under the supervision of the Federal court, each of the 74,252 students was mailed an application for assignment to

Boston public schools. The application was to provide information to parents and students about the schools and the various educational programs offered. Students could indicate their preference for assignment either within their community district without naming a specific school or to the citywide district by naming a specific school. About 62,000 applications were returned by the deadline for submission. However, the school department continued to include all 74,252 students in the projected enrollment because they met its criterion of having attended a Boston public school for at least 1 day the previous year.

During the summer the projected enrollment was continually updated to include new students entering the system and on the first day of school, the school department provided the Federal court with a projected enrollment of 76,127 students in grades 1 through 12. The following table shows the racial classifications of the projected enrollment.

	Projected enrollment	Percent
White	38,489	50
Black	29,366	39
Other	8,272	11
Total	76,127	100

Sample results

To test the validity of the 76,127 figure, we randomly selected 2,538 students to find out whether they met the school department's criteria of having (1) filed an application for assignment or admission or (2) attended a Boston public school at least 1 day during school year 1974-75. (See app. IV.)

We noted that 2,000 students in our sample had either returned an assignment application or had applied for admission as new students. We analyzed the previous year's attendance records for the remaining 538 students and noted 34 that should not have been included in the projected enrollment for the following reasons.

	White	Black	Other	Total
Discharged during school year 1974-75	3	2	1	6
Duplicate listing	1	-	-	1
Graduated in June 1975	-	2	-	2
Kindergarten student	7	1	-	8
Did not attend school at all during school year 1974-75	11	4	2	17
Total	22	9	3	34

Using statistical sampling techniques, we estimated that similar findings would exist throughout the school system and that the projected enrollment should have been 75,089 with the following racial breakdown.

	Number of students		
	Reported by school department	Our estimate	Difference
White	38,489	37,799	690
Black	29,366	29,086	280
Other	8,272	8,204	68
Total	76,127	75,089	1,038

The difference (1,038) between our estimate and the figures reported by the school department was 1.4 percent.

Questionable criterion used by school department for projected enrollment

We question the school department's criterion of including students in projected enrollment merely because they attended school 1 day in the previous year. In our opinion, a student should be included in the projected enrollment only if there is a reasonable expectation that he or she will attend school. Using the same criteria as the school department but excluding the students with extremely poor attendance records for the prior school year who were included in the school department's projected enrollment, we estimated that the projected enrollment was 2.3 percent lower than that reported by the school department.

During our analysis of attendance records, we noted that there were 24 students in our sample whose poor attendance

during school year 1974-75 might indicate that they had left the Boston school system. None of these students had attended school during the last 50 days of the school year (since April 2) and 17 had attended school less than 30 days during the year. Our review of attendance records and discussions with teachers and school officials showed that none of the 24 students had a justifiable reason for being habitually absent. Their attendance is summarized in the following table.

Last month student attended	Number of students	Total days attended during school year 1974-75				
		1-15	16-30	31-45	46-60	61-75
September	2	2				
October	3	3				
November	1	1				
December	2	1	1			
January	3	1	1	1		
February	1	1				
March	8	4		2	2	
April	4		2	1		1
Total	24	13	4	4	2	1

Excluding the 24 students with poor attendance and the 34 students who did not meet school department criteria for inclusion in projected enrollment, we recomputed the projected enrollment. Under this method the projected enrollment should have been 74,375, or 2.3 percent lower, as shown below.

	Number of students		
	Reported by school department	Our estimate	Difference
White	38,489	37,549	940
Black	29,366	28,712	654
Other	8,272	8,114	158
Total	76,127	74,375	1,752

CONCLUSIONS

Based on the results of our sample, there was no major difference between our estimates of the projected enrollment and the figure reported by the school department.

The school department's criterion of including students in projected enrollment solely on the basis of their having

attended school for 1 day in the prior year is unrealistic. The school department should have analyzed student attendance records before including them in the projected enrollment and insured that those with poor attendance had not actually left the school system.

In developing future projected enrollment figures, the school department should analyze student attendance records and insure that there is a reasonable expectation that students with poor attendance will return to school.

CHAPTER 3

ACTUAL ENROLLMENT

The school department publishes various reports on the status of students. The department reported that as of December 31, 1975, 67,146 students were actually enrolled in school in grades 1 through 12.

We tested the validity of this figure using statistical sampling techniques and found no major difference between it and our estimate of actual enrollment. Our estimate was 1.5 percent lower than the school department's figure.

We questioned the school department's criterion of counting students as actually enrolled merely because they attended school for 1 day. When we excluded students with extremely poor attendance records, our estimate was 13.1 percent lower than school department's figure.

The Federal court order contained desegregation guidelines for the district schools in the Boston school system. The racial composition of 46 of the 58 schools we visited did not meet the Federal guidelines.

ANALYSIS OF ACTUAL ENROLLMENT

The school department defined actual enrollment as those students who attended school for at least 1 day during the school year 1975-76 and who had not been officially discharged. At the start of the school year, each school principal was furnished an alphabetical listing of students assigned to the school (projected enrollment) and a data card for each student. At the end of each week, school principals were required, for each student who reported to school for the first time, to send to the school department

--data cards for those students on the projected enrollment list or

--transfer or new admission forms for those students who were not on the projected enrollment list.

The school department used this information to periodically update actual enrollment listings and statistical reports. (See apps. V and VI.)

Sample results using school department criteria

We used a stratified two-stage cluster sample 1/ to test the accuracy of the school department's figure of 67,146 students reported to be actually enrolled as of December 31, 1975. In the first stage, we divided the 164 schools by level (high, middle, and elementary) and randomly selected schools from each level. In the second stage, we randomly selected students from a list furnished by the school department for each school to find out whether the students were actually enrolled. (See app. IV.) The following table shows the total number of public schools in Boston, the reported actual enrollment, and data about our sample.

	School level			
	High	Middle	Elementary	Total
Number of schools	19	28	117	164
Reported actual enrollment	21,470	16,353	29,323	67,146
Schools sampled	10	14	36	60
Reported actual enrollment of schools sampled	10,205	7,616	9,105	26,926
Students sampled	385	486	1,255	2,126

To determine whether the student was enrolled, we reviewed attendance records of the students sampled and found 27 who were incorrectly included in the actual enrollment for the following reasons:

--17 had not reported to school at all between September 6 and December 31, 1975;

--9 had left school before December 19, 1975; and

--1 was enrolled in kindergarten.

Teachers and school principals told us that discharge forms had been prepared for the nine students who left school

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1/ This involves selecting a random sample of clusters (in this case schools) and then selecting a random sample of elements within each cluster (in this case students). It enables one to draw conclusions about a large universe by examining a relatively small sample.

before December 19. However, their names had not been removed from the actual enrollment list as of December 31.

Using statistical sampling techniques, we estimated that similar findings would exist throughout the school system and that the actual enrollment as of December 31, 1975, should have been 66,163, as shown below.

	Number of students		
	Reported by school department	Our estimate	Difference
White	30,626	30,079	556
Black	28,588	28,240	348
Other	7,932	7,853	79
Total	67,146	66,163	983

The difference of 983 between our estimate of actual enrollment and the figure reported by the school department was 1.5 percent.

Sample results using school department criteria and analyzing attendance records

As in estimating projected enrollment, we question the school department's criterion of counting students as actually enrolled merely because they attended school for 1 day. In our opinion, an actual enrollment figure should include only students who attend school regularly. During our review of attendance records for school year 1975-76, we noted that there were 54 students whose attendance might indicate that they had left the Boston school system. Of the 54 students, 36 were absent all of December (15 school days) and November (17 school days) and 12 were absent all of December and 75 percent of November (13 days). The remaining six students were absent all of December, and their teachers did not expect them to return to school. Our review of attendance records and discussions with teachers and school officials showed that none of the 54 students had a justifiable reason for being habitually absent.

According to school department officials, teachers are initially responsible for determining the reasons that students are absent and for referring unexplained absences to attendance supervisors after a student has been absent for 10 consecutive days. We noted that the names of nine students had not been referred to attendance supervisors. Of the 45 students

whose names had been referred, attendance supervisors had not determined the whereabouts of 28. School department officials told us this was primarily because the attendance supervisors' major efforts were directed towards determining the whereabouts of the students who had not reported to school at all thus far in the 1975-76 school year. Attendance supervisors found that the remaining 17 students had left the Boston public school system, but their names had not been removed from the actual enrollment list as of December 31, 1975.

As discussed in chapter 4, we verified the reported daily attendance where data was available at the 58 of the 60 schools in our sample. We also noted that there were 120 students at 35 schools who were not included in that school's actual enrollment. We examined enrollment lists for all other schools in the school system and found that 42 of the 120 students were included in the actual enrollment of other Boston schools; the remaining 78 were not included in the actual enrollment of any Boston school.

Based on a projection of our sample results excluding the students with poor attendance and including those who were attending but were not counted in the actual enrollment, we estimate the actual enrollment should have been 65,722, or 2.1 percent fewer students than reported by the school department, as shown below.

	Number of students (percent)		
	Reported by school department	Our estimate	Difference
White	30,626 (46)	29,653 (45)	973
Black	28,588 (42)	28,143 (43)	445
Other	7,932 (12)	7,926 (12)	6
Total	67,146 (100)	65,722 (100)	1,424

The racial breakdown of our estimate was about the same as the school department's, as shown in the table above. However, for four of the schools in our sample, there was a difference of at least 5 percent in one or more racial categories, as shown in the following table.

School	Percent of Actual Enrollment by Racial Category							
	School department				Our estimate			
	White	Black	Other	Total	White	Black	Other	Total
Charlestown High	71	24	5	100	76	19	5	100
Boston High	47	39	14	100	41	44	15	100
Madison Park High	34	57	9	100	24	66	10	100
Lewenberg Middle	41	57	2	100	35	63	2	100

Appendix VII shows a comparison of the school department's reported figures and our estimate of the racial composition of the 60 schools we visited.

Conformance of schools to racial composition ordered by Federal court

To conform with the Federal court-ordered desegregation guidelines, a community district school's racial composition must be within a range "determined by computing the white, black, and other minority percentages of the district's student population and multiplying the resultant percentages by 25 percent." For example, if the percentage of white students residing in a district is 40 percent, any school within that district can have a white student population ranging from 30 to 50 percent of the total school population.

The range was determined by applying 25 percent, as prescribed by the court guidelines, to the 40 percent, representing the white students, with the result being 10 percent. Thus, the range would be 40 percent plus or minus 10 percent, or 30 to 50 percent.

For the citywide district schools (district 9), the computation is slightly different. According to the court-ordered desegregation guidelines, "the white and combined black and other minority percentages at each citywide school shall be within five percentage points of the systemwide percentages." The systemwide racial percentages were projected by the court to be 51 percent white and 49 percent black and other minorities for school year 1975-76. Thus, for each school in the citywide district, a range of 46 to 56 percent for white students, and 44 to 54 percent for black and other minority students is allowed.

Using school department enrollment data as of December 31, 1975, and applying the above guidelines to 58 of the 60 schools 1/ we visited, we noted that 46 of the schools did not meet Federal guidelines in that

--21 had racial compositions that did not conform to the court order in 1 of the 3 racial classifications (see app. VIII),

--16 had racial compositions that did not conform to the court order in 2 of the 3 racial classifications (see app. IX), and

--9 had racial compositions that did not conform to the court order in any of the racial classifications (see app. X).

The remaining 12 schools had racial compositions that were in conformance with the court order.

The racial compositions (in percentages) as of December 31, 1975, for each of the 60 schools we visited are shown in appendix VII. The racial compositions (in percentages) of the individual school districts as shown in the court order and based on actual enrollment as of December 31, 1975, are shown in appendix XI.

STUDENTS DISCHARGED

School department officials define discharges as students who have left the Boston school system for a valid reason, such as to go to another school system, seek employment, enter the armed services, or get married. As of December 31, 1975, the school department reported that 9,576 students had been discharged between September 8 and December 31, 1975. This figure included 290 kindergarten and 117 postgraduate students.

School principals were required to complete a discharge form for all students who left the Boston school system. Using these forms, which include the reason for leaving, the school department periodically prepared computerized lists of discharged students and reports summarizing the number of students who had left and their reasons for doing so.

1/Boston Latin and Boston Technical High Schools were excluded because they are examination schools (students must pass an entrance examination) and were subject to independent desegregation guidelines for school year 1975-76.

Although the school department reported that 9,576 students had been discharged between September 8 and December 31, 1975, the computerized list contained the names of 12,124 students, a difference of 2,548 students. An official in the office of implementation told us that the 2,548 students were not reported because many were erroneously included as discharges, when in fact they had transferred from one school to another within the school system.

Sample results

To verify how many students were actually discharged from grades 1 through 12, we randomly selected 357 students from the list of 12,124 discharges. We reviewed discharge forms and, when possible, verified the whereabouts of the students. The results of our sample are shown below.

	Discharges		
	Reported	Unreported	Total
Number of students:	9,576	2,548	12,124
Sampled	282	75	357
Considered proper	266	32	298
Considered improper	16	43	59

We considered 59 of the discharges to be improper because

--23 had transferred between schools in the school system,

--4 had left school in the prior year,

--3 were still attending school, and

--29 were kindergarten or postgraduate students.

Although we determined that 298 students were proper discharges (i.e., had left the Boston school system) we were unable to verify the whereabouts of 110 of them. For 92 students, the discharge forms did not contain adequate information about where the student was going. For example, some forms only showed the State a student was supposedly going to; others showed the State and city but not the school; and others merely contained the comments "unknown," "no-show," or "work." In addition, 13 of the 110 students had not enrolled in the schools listed on the discharge forms. For the remaining five students, officials of the schools listed on the discharge forms would not tell us if the students were enrolled.

Based on a projection of our sample results, we estimate that 10,126 students in grades 1 through 12 were discharged from Boston public schools between September 8 and December 31, 1975--9,057 of the reported discharges and 1,069 of the unreported discharges. We estimate that the racial composition was as follows:

	Number	Percent
White	6,948	69
Black	2,319	23
Other	859	8
Total	10,126	100

STUDENTS NOT REPORTING TO SCHOOL

The school department reported that 2,454 students who had been included in the projected enrollment figure had not reported to school between September 8 and December 31, 1975. To verify the accuracy of this figure, we randomly selected a sample of 200 of these students. We obtained information from the school department about the status of these students and, when possible, verified the information as shown below:

	Number of students	
	Reported	Verified
Attending Boston public schools	24	24
Attending other than Boston public schools	53	53
Discharged after December 31, 1975	38	38
Involved in legal actions because of nonattendance	35	-
Moved and their addresses were unknown	50	-
Total	200	115

We contacted officials at Boston public schools and verified that 24 students had enrolled and were attending these schools before December 19, 1975. We contacted officials at other schools and verified that of the 53 students reportedly attending these schools

--39 were attending private academies in Boston,

--12 were attending parochial schools in the Boston Archdiocese, and

--2 were attending public schools outside of Boston.

We also reviewed discharge records and verified that 38 students had been officially discharged after December 31, 1975.

We could not practicably verify the whereabouts of the 35 students whose parents were involved in legal actions because of nonattendance or the whereabouts of the 50 students who could not be located by the school department.

Based on a projection of our sample results, we estimated that the number of students listed as not reporting to school by December 31, 1975, was overstated by 292, or about 12 percent, as shown below.

	Number of students		
	Reported by school department	Our estimate	Difference
White	1,528	1,401	127
Black	560	448	112
Other	366	313	53
Total	2,454	2,162	292

RELATIONSHIP BETWEEN PROJECTED AND ACTUAL ENROLLMENT

According to the school department's definition, actual enrollment (students who actually reported to school) is equal to projected enrollment plus new admissions (students who were not previously in the school system) minus students who were discharged and students who did not report to school.

As of December 31, 1975, the school department had not reconciled the difference between the projected and actual enrollment. We were unable to make such a reconciliation because the school department did not have all necessary information readily available. It had data on projected enrollment, actual enrollment, discharged students, and students who did not report to school but did not have computerized data on the number of newly admitted students. A school department official told us that data on the number of new admissions had

been obtained and entered into the computer system but that the tape was inadvertently erased. He added that the data could be reconstructed manually but that because of the time involved this was not done.

CONCLUSIONS

Based on a projection of our sample results, there was no major difference between our estimates of actual enrollment and the figure reported by the school department.

The school department should not consider students as actually enrolled merely because they attended school for 1 1 day. We noted 54 students who had been absent for at least 15 consecutive days and most of them had been absent for 32 consecutive days. We believe that students who have been absent for a given number of consecutive days (e.g., 5 or 10 days) without furnishing the school with a justifiable reason for their absence should not be included in actual enrollment statistics. Such students could be placed in an inactive enrollment status until it is determined whether or not they plan to return to school.

In addition, we noted that the racial composition of 46 of the schools we visited did not meet the guidelines of the Federal court order.

A projection of our sample results showed that the school department understated the number of students discharged from grades 1 through 12 between September 8 and December 31, 1975. There were differences between our estimate of 10,126 and (1) the school department's reported figure of 9,576 and (2) the the 12,124 figure on the computerized list. Both school department figures were inaccurate. The reported figure included some kindergarten and postgraduate students but excluded many students who had been discharged; the computerized figure included many students who were not discharged.

In future school years, the school department should consider establishing procedures and controls to insure that discharge forms contain adequate information so that all student discharges can be accurately reported.

The projection of our sample results also showed that the number of students who had not reported as of December 31, 1975, was overstated by about 12 percent.

CHAPTER 4

ATTENDANCE

The average daily attendance for the Boston public school system during school year 1975-76 (through April 30, 1976) was 53,941, ranging from a low of 45,282 on September 8, 1975, to a high of 57,294 on October 28, 1975. 1/

We tested the accuracy of the reported attendance figures using statistical sampling techniques. Although we noted many errors, they tended to offset each other. Thus, the effect of the errors on the daily attendance reported by the school department for the school system was minimal.

ANALYSIS OF DAILY ATTENDANCE

The attendance unit of the school department's office of implementation is responsible for recording and reporting daily attendance. Generally, within 1 hour after the start of school, each school principal reports the day's attendance to the attendance unit by telephone. Based on this information, the office of implementation prepares daily attendance reports.

Each report is broken down by racial category--black, white, and other minorities. Racial categories were derived from student applications for assignment or admission or from prior school records. This information is recorded on actual enrollment lists.

At the beginning of school year 1975-76, each school received a projected enrollment printout which included a racial breakdown of the students in each homeroom. Principals were instructed to distribute the printouts to the teachers so that the information would be updated. However, there are no regulations or guidelines to assist teachers in determining and/or verifying racial classifications. Consequently, attendance and data processing officials told us that there is no assurance that the necessary changes were made, and for those changes that were made, there was no assurance of their accuracy.

1/ These figures exclude bad weather days and the teachers' strike period of September 22-29, 1975. Average daily attendance including the strike period was 52,089.

Sample results

For 58 1/ of the schools we selected for the enrollment review phase, we randomly selected a school day between September 9, 1975, and December 19, 1975, (excluding the teachers' strike period of September 22-29, 1975). At each school, we randomly selected at least five classrooms to verify attendance figures reported to the attendance unit for the selected day. When a sample school had fewer than 10 classrooms, we analyzed the attendance of all classrooms. If a school had not kept its 1975 attendance sheets for the individual classrooms, we selected a day in January or February 1976 to verify attendance.

For each of the 306 classrooms selected, we used the teacher's official attendance document (required by State law) to verify the attendance on the selected day. We used the racial classifications shown on the December 31, 1975, actual enrollment lists provided by the school department. Our attendance figure was compared to the attendance figure originally reported by that classroom teacher. All discrepancies were discussed with the responsible teacher or school official to attempt to reconcile the differences.

For the same day, we mathematically verified the school's attendance by totaling the attendance slips submitted by each classroom and compared the school's reported attendance with the attendance reported by the attendance unit. Also, at 28 of the schools visited, we counted the students present that day in 59 classrooms.

We verified the racial breakdown of attendance for the 306 classrooms and noted that 168 (55 percent) of the classrooms reported attendance that was either incorrect or inconsistent with racial classifications on the December 31, 1975, enrollment lists. In 54 classrooms the teachers made counting errors when tallying the attendance. In 74 classrooms the teachers reported a racial classification for some students that differed from the actual enrollment printouts. In 38 classrooms the teachers made a counting error and reported some students under a racial classification that differed from the printouts. In two classrooms teachers made transposition errors. In only 1 of the 58 schools visited did the reported attendance of all selected classrooms agree with our reconstructed attendance.

1/ These were the same schools selected for the enrollment phase except that we could not verify attendance at three schools because data was not readily available. We selected one additional high school to verify attendance.

Racial classification errors

The teachers attributed 65 percent of the racial classification discrepancies to their own errors and 35 percent to what they believed were errors on the enrollment printouts. Some teachers said they were unfamiliar with racial classifications on enrollment printouts. This may be because teachers are not required to base their daily attendance reports on the racial information contained on the printouts.

Computation errors

In 19 of the 58 schools visited our compilation of daily attendance records revealed differences between the school's reported attendance and our mathematically verified attendance. One school, at the beginning of the school year, reported actual enrollment rather than attendance. The remaining schools made mathematical errors. The effect of these errors on the daily attendance was minimal both on the total daily attendance and on the individual attendance of white, black, and other minority students.

The comparison of the schools' reported attendance figure with the attendance unit's reported attendance figure revealed only one discrepancy. This appeared to have been a transcription error made by the attendance unit because only the "other" category had a different figure.

Additional students attending

While verifying attendance on an individual classroom basis, we noted 120 students who were in attendance on the sample days but who were not included on their schools' December 31, 1975, enrollment list. Of the 120 students, 42 were listed on other Boston public schools' enrollment lists. Because the remaining 78 students were not on any enrollment list, we included them in the projection of our sample results of actual enrollment. This matter was discussed in chapter 3.

Headcounts

At 28 of the schools visited, we counted the students present that day in 59 classrooms. Generally, we counted the students after the teacher had reported attendance.

We noted that errors were made in 16, or 27 percent, of the 59 classrooms. Teachers made counting errors in 4

classrooms, reported some students under a racial classification that differed from that shown on the actual enrollment printouts in 10 classrooms, and made counting errors and used different racial classifications in 2 classrooms.

Projected results

Projecting our sample results to the entire Boston public school system, we estimate the average daily attendance reported by the attendance unit included 373 more white students, 119 more blacks, and 520 fewer other minorities than were actually present. Thus, a total of 28 fewer students were reported daily than were actually present.

This discrepancy is insignificant considering that the average daily attendance in the Boston public schools was 53,941 between September 8, 1975, and April 30, 1976. When expressed as a percentage of actual enrollment for the same period, the attendance averaged 82 percent of enrollment. If the teachers' strike period (Sept. 22-29, 1975) had been included in the computation, the average daily attendance would have been 52,089, or 80 percent of enrollment.

The racial breakdown of average daily attendance was as follows.

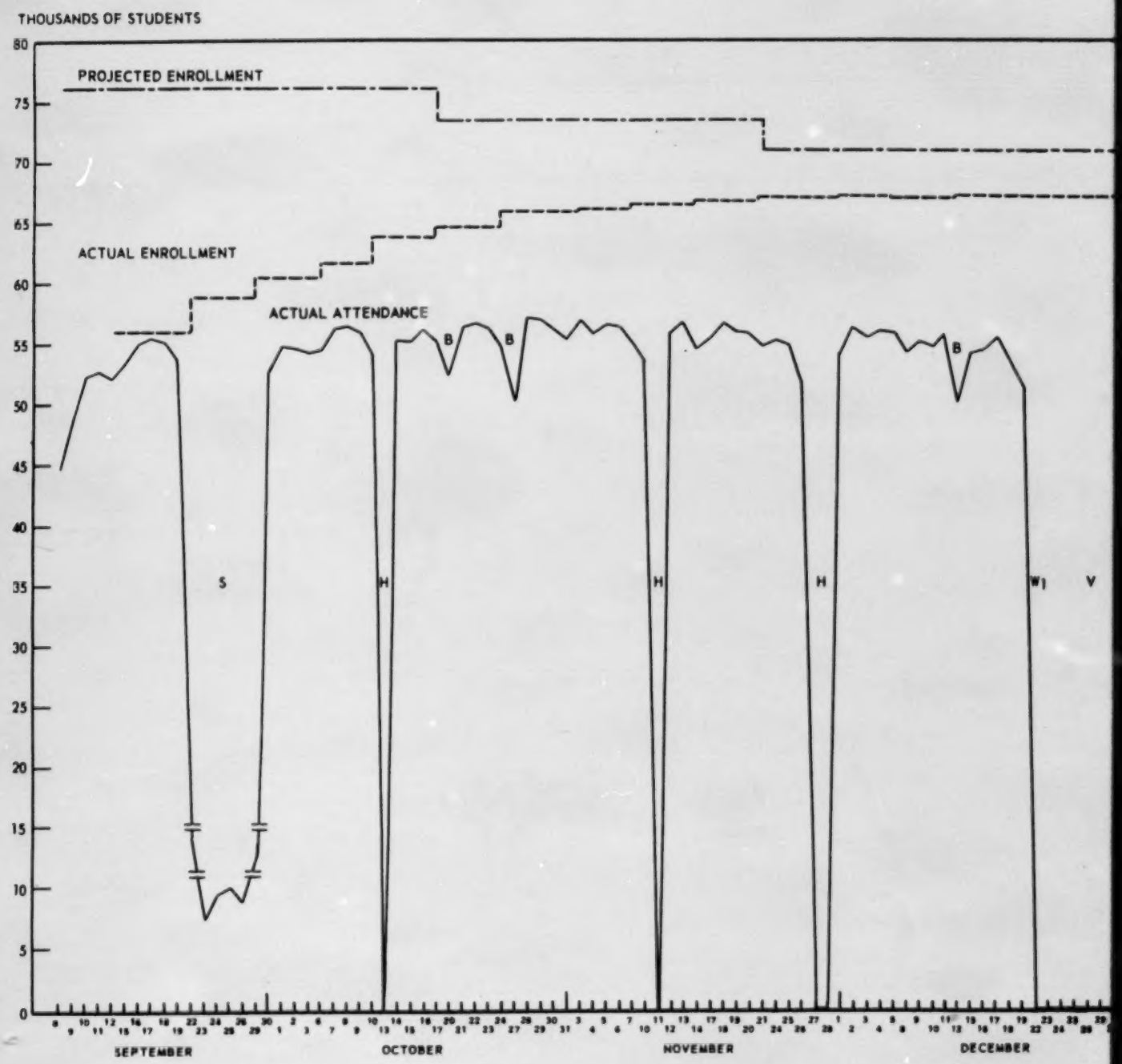
	Excluding strike days		All days	
	Number	Percent	Number	Percent
White	24,700	46	23,792	46
Black	22,146	41	21,454	41
Other	7,095	13	6,843	13
Total	53,941	100	52,089	100

The daily attendance as well as actual and projected enrollment from September 8, 1975, to April 2, 1976, is shown in the chart on page 23. As discussed in chapter 3, we reviewed the attendance records of a sample of 2,126 students to determine whether they were actually enrolled. Eighty-three percent of the students in our sample who were actually enrolled had attended school more than 75 percent of the time, as shown below.

Percent of school days attended	Percent of students in sample
0 to 25	3
26 to 50	3
51 to 75	11
76 to 89	24
90 to 100	59

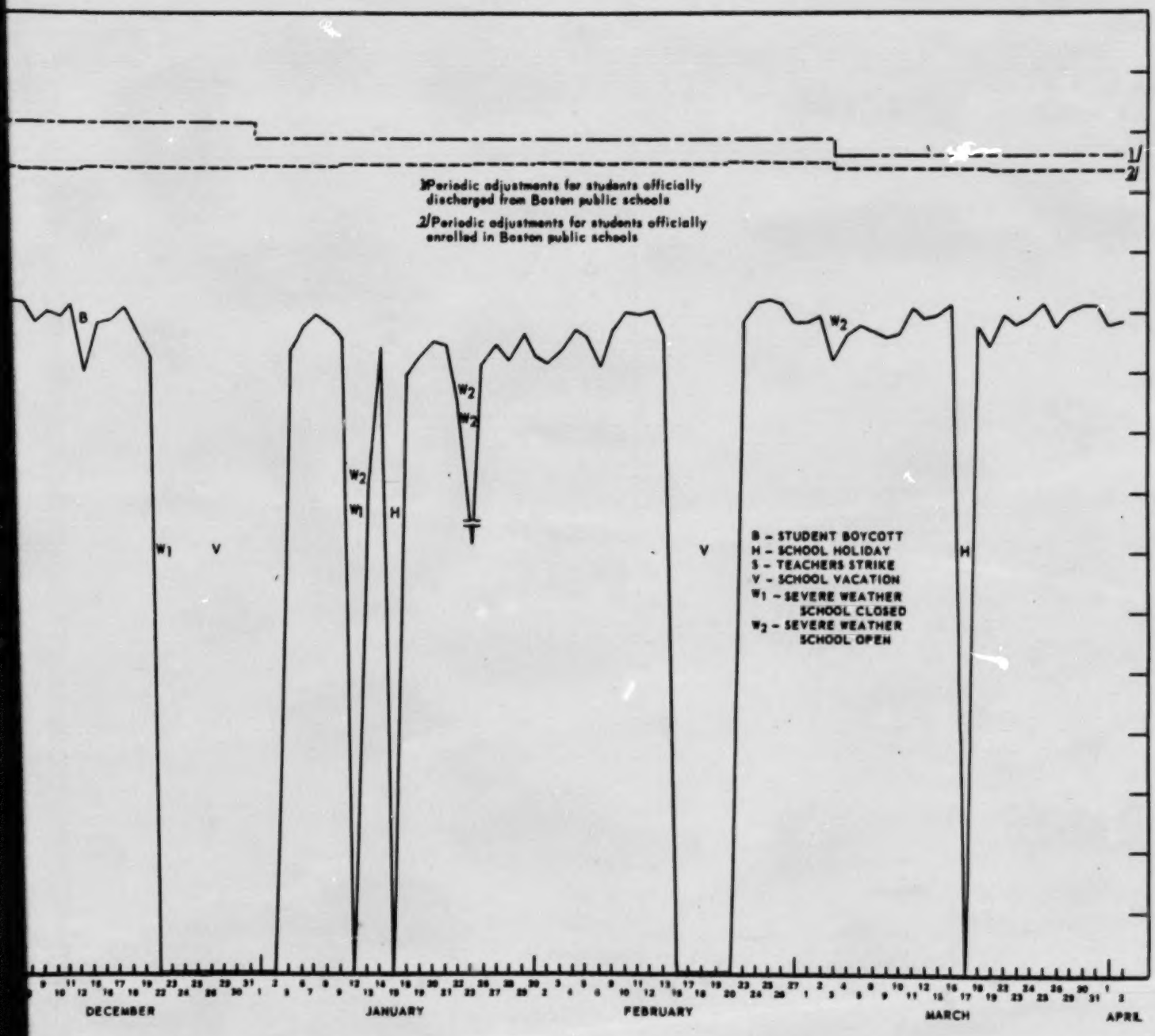
Daily Attendance and Actual and Projected Enrollment as

for Boston Public Schools for the Period Se



ted Enrollment as Reported by the Boston School Department

for the Period September 8, 1975-April 2, 1976


1/Periodic adjustments for students officially discharged from Boston public schools
2/Periodic adjustments for students officially enrolled in Boston public schools
B - STUDENT BOYCOTT
H - SCHOOL HOLIDAY
S - TEACHERS STRIKE
V - SCHOOL VACATION
W1 - SEVERE WEATHER SCHOOL CLOSED
W2 - SEVERE WEATHER SCHOOL OPEN
DECEMBER
JANUARY
FEBRUARY
MARCH
APRIL

Thus, the average daily absences of about 11,000 might be due generally to the same students who are habitually absent.

CONCLUSIONS

Although there were many errors in the reported attendance figures, they tended to offset each other. Thus, the effect of the errors on the average daily attendance reported by the school department for the school system was minimal.

The errors made in racial classification were directly attributable to

- --the teachers' unfamiliarity with racial classifications on actual enrollment printouts,
- --errors made on the enrollment printouts, and
- --no requirement to base daily attendance reports on racial classification enrollment printouts.

The mathematical errors made in schools' reported attendance were caused by carelessness and could have easily been avoided.

In the future racial classification information on all actual enrollment printouts should be verified. This information should then be used in reporting daily attendance.

CHAPTER 5

FEDERAL FUNDS RECEIVED BY THE BOSTON PUBLIC SCHOOLS

Between January 1, 1973, and February 18, 1976, the Boston School Department received $47.6 million in Federal funds. Of this amount, $34.4 million came from the Department of Health, Education, and Welfare; $1.6 million from the Department of Labor; and $11.6 million from the Department of Agriculture. The grants were awarded during the following fiscal periods.

Department	FY 1973 and earlier	FY 1974	FY 1975	FY 1976	Total
	(millions)				
Health, Education, and Welfare	$7.3	$10.0	$14.8	$2.3	$34.4
Labor	.6	.3	.7	0	1.6
Agriculture	0	4.4	5.8	1.4	11.6
Total	$7.9	$14.7	$21.3	$3.7	$47.6

Of the total, $42 million was channeled through the Massachusetts Department of Education to the school department, as follows.

Program	Amount (millions)
Elementary and Secondary Education Act:	
Title I (20 U.S.C. 241A)	$24.6
Title II (20 U.S.C. 821)	.3
Title III (20 U.S.C. 841)	1.1
Adult Education Act (20 U.S.C. 1201)	1.1
Vocational Education Act (20 U.S.C. 1241)	1.6
Comprehensive Employment and Training Act (29 U.S.C. 801)	1.6
Agriculture grants (e.g., school lunches)	11.6
Other grants	.1
Total	$42.0

The school department also received $5.6 million directly from the Department of Health, Education, and Welfare for the following programs.

Program	Amount (millions)
Elementary and Secondary Education Act, title VII (20 U.S.C. 880b)	$0.5
Higher Education Act (Teachers Corps) (20 U.S.C. 1101)	.4
Emergency School Aid Act (20 U.S.C. 1601)	3.4
National Reading Improvement Program (Right to Read) (20 U.S.C. 1101)	.2
School Assistance to Federally Affected Areas (Impact Aid) (20 U.S.C. 236)	1.1
Total	$5.6

Only the awards of the Impact Aid program (assistance to schools affected by Federal activities) and the Elementary and Secondary Education Act (title II, assistance to schools for library resources) are affected by enrollment or attendance statistics. Starting in fiscal year 1977, title IV, part B, of the Elementary and Secondary Act (Public Law 93-380) will replace title II (Public Law 89-10), but the objectives of the program will remain the same. Applications for these programs include actual enrollment and/or attendance data taken from "Individual School Reports" which are submitted annually to the State. The 1975-76 Individual School Reports were completed by the school department's statistics office rather than by the individual schools. When compiling the enrollment data, the statistics office used projected instead of the required actual enrollment figures.

Although the projected enrollment figures were submitted with the initial fiscal year 1976 Impact Aid application, this application only provides the basis for an interim payment. The final application will include the actual "average daily attendance" which will be the basis for computing the final payment; i.e., adjustments will be made and the school department will receive the difference between the computed award and the interim payment.

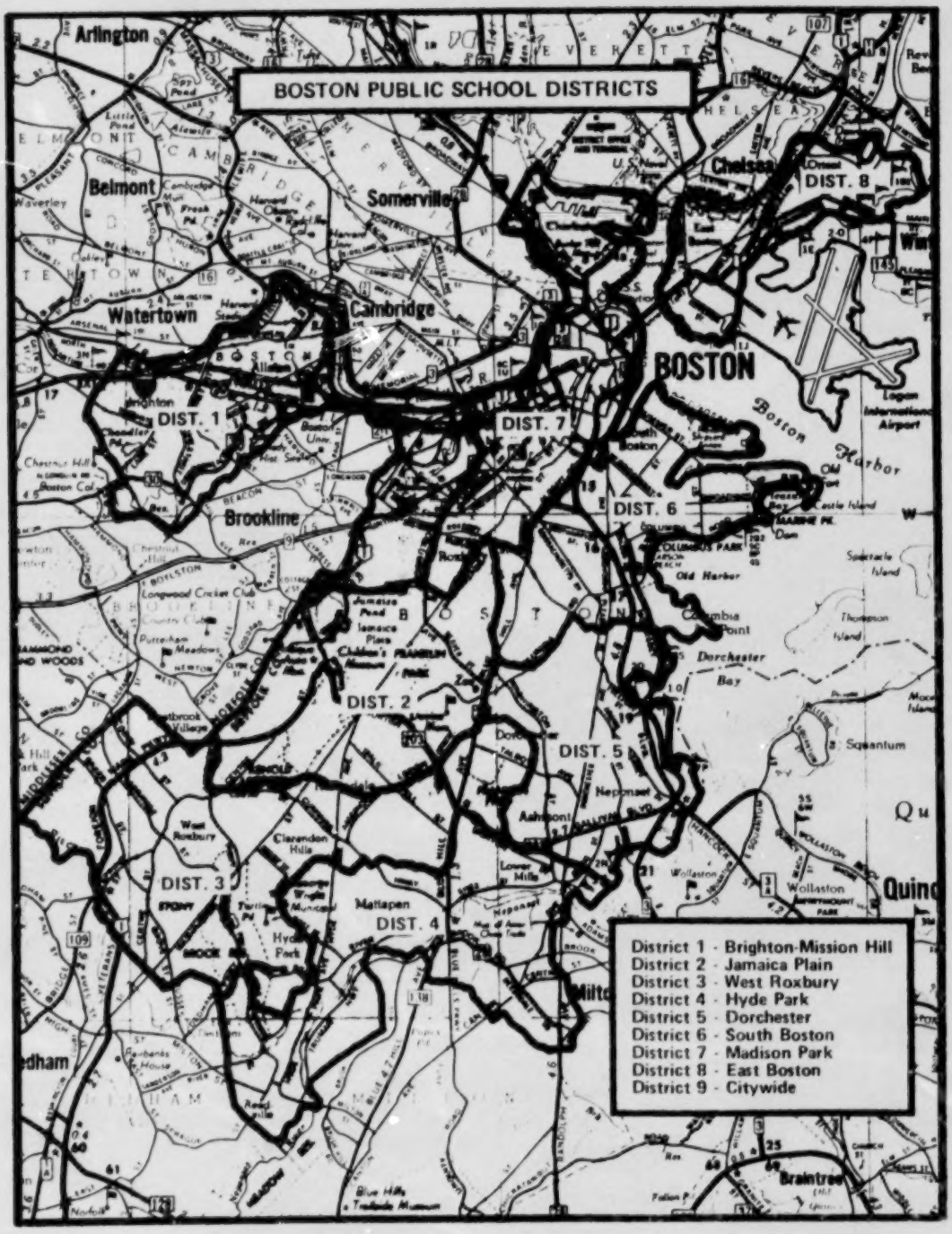
Title II grants were awarded based on actual enrollment data for school year 1974-75 and before. However, because the school department submitted projected instead of actual enrollment data for school year 1975-76, if not corrected, it could

receive more title II (title IV, part b, at that time) funds in fiscal year 1977 than it is entitled to.

CONCLUSIONS

Based on the results of our tests of enrollment and attendance figures as discussed in chapters 2, 3, and 4, the Government would not be adversely affected if the school department's figures were used in securing Federal funds under the only two programs affected by enrollment or attendance data--Impact Aid and title II of the Elementary and Secondary Education Act. However, when reporting school year 1975-76 enrollment statistics, the school department used projected rather than the required actual enrollment figures. If not corrected, this could affect the amount of title II funds to be received by the school department in fiscal year 1977.

APPENDIX I


BOSTON PUBLIC SCHOOL DISTRICTS
Arlington
Belmont
Somerville
Cambridge
Watertown
Brookline
Chelsea
BOSTON
DIST. 1
DIST. 2
DIST. 3
DIST. 4
DIST. 5
DIST. 6
DIST. 7
DIST. 8
Boston Harbor
Dorchester Bay
Logan International Airport
Braintree
District 1 - Brighton-Mission Hill
District 2 - Jamaica Plain
District 3 - West Roxbury
District 4 - Hyde Park
District 5 - Dorchester
District 6 - South Boston
District 7 - Madison Park
District 8 - East Boston
District 9 - Citywide

APPENDIX II

ACTUAL ENROLLMENT REPORTED TO MASSACHUSETTS DEPARTMENT OF EDUCATION BY BOSTON PUBLIC SCHOOLS FROM 1966 TO 1975 (note a)

School year	Grades 1-12	Kindergarten	Total
1966-67	79,157	9,054	88,211
1967-68	78,520	13,329	91,849
1968-69	78,856	14,806	93,662
1969-70	79,748	14,847	94,595
1970-71	81,892	14,347	96,239
1971-72	82,181	13,886	96,067
1972-73	81,925	13,226	95,151
1973-74	80,689	12,612	93,301
1974-75	74,318	11,337	85,655
b/1975-76	73,917	10,317	84,234
	(66,175)	(10,286)	(76,461)

a/As of October 1 each year, except 1975-76 as of November 1, 1975.

b/Projected enrollment was reported. Actual enrollment is shown in parentheses.

APPENDIX III

JAMES A. BURKE
ELEVENTH DISTRICT
MASSACHUSETTS

241 HOUSE OFFICE BUILDING
WASHINGTON, D.C. 20515

Congress of the United States
House of Representatives
Washington, D.C. 20515

MEMBER:
COMMITTEE ON
WAYS AND MEANS

CHAIRMAN:
SOCIAL SECURITY COMMITTEE

MEMBER:
UNEMPLOYMENT COMPENSATION
SUBCOMMITTEE

JOINT COMMITTEE ON
INTERNAL REVENUE TAXATION

October 23, 1975

Elmer B. Staats
Comptroller General of the United States
General Accounting Office
441 G Street
Washington, D.C. 20548

Dear Mr. Staats:

The enclosed letter which I have received from a Member of the Massachusetts State Senate is indicative of a great many letters which have come into my office requesting an audit of student enrollment figures for the Boston School System.

As you will note from the enclosed article taken from the Boston Globe, the concern over the validity of student enrollment figures in Boston has also received a good deal of attention in the press. Since these enrollment figures bear a central relationship to the administration of court-ordered busing throughout Boston, and because they can have a direct effect on Federal school-aid funds, monies for impacted school areas, Federal nutritional-aid funds, and a great many other programs, I feel that an audit by the General Accounting Office is required. This letter represents my formal request that an audit of student enrollment figures for the Boston School System be initiated by the General Accounting Office.

With much appreciation for your kind attention to this matter, and with all best wishes, I remain

Sincerely,

James A. Burke

JAMES A. BURKE
Member of Congress

JAB/kjk
Enclosures

STATISTICAL SAMPLING TECHNIQUES USED BY GAO

Statistical sampling enables one to draw conclusions about a universe based on information contained in a sample of that universe. The results from a random selection of any sample are always subject to some uncertainty (i.e., sampling error) because only part of the universe has been selected for analysis. The sampling error consists of two parts: confidence level and range. The confidence level indicates the degree of confidence that can be placed in the estimates derived from the sample. The range is the upper and lower limits between which the actual value of the universe will be found.

For example, suppose a random sample of 200 hospital patient payment records were selected from a universe of 10,000 such records and that the sample average payment was $94.22. Based on the sample and the sampling error formula, a confidence level of 95 percent could be set, meaning that we could be 95-percent confident that the average payment per patient in the universe would be $94.22 $\pm$ $2.92. If all 10,000 records were checked, the chances are 95 in 100 that the actual average payment would be between $91.30 and $97.14.

PROJECTED STUDENT ENROLLMENT

To verify the accuracy of the school department's projected enrollment of 76,127 students, we randomly selected a sample of 2,538 students from that enrollment figure. (See p. 5.) The sample size was determined so that the results would be at a 95-percent confidence level with a maximum tolerable sampling error of 1,000 students.

The sample size was determined by the formula

$$n = \frac{t^2 s^2}{E^2}$$ in which:

n = sample size

t = confidence factor (1.96 is the number which represents the 95-percent confidence level),

s^2 = the variance of units in the universe,

E = maximum tolerable sampling error.

The following table represents the sample selected using this formula.

Comparison by Race of Projected Enrollment with Our Sample

	Universe	Percent	Sample	Percent
White	38,489	50	1,228	48
Black	29,366	39	943	37
Other	8,272	11	367	15
Total	76,127	100	2,538	100

We reviewed the sample to determine the number of students who did not meet the school department's criteria for projected student enrollment. Using the sample results, we were able to estimate the number of students in the universe who did not meet these criteria using the following formula.

$$(p)x(\text{school department's projected enrollment}) \pm (t)x\sqrt{\frac{(pq)}{n}}x(\text{school department's projected enrollment})$$

where:

x = incorrect projected enrollees in sample
n = sample size
t = confidence level (1.96 for 95 percent)
p = $\frac{x}{n}$ = percent of incorrect enrollees in sample
q = 1-p

The results of our sample using the same criteria as the school department are as follows.

Estimate	Sampling error	Range	
		Low	High
75,089	± 335	74,754	75,424

Thus, we are 95-percent confident that the projected enrollment is between 74,754 and 75,424.

The results of our sample using the same criteria as the school department but excluding students with poor attendance records are as follows.

Estimate	Sampling error	Range Low	Range High
74,375	± 435	73,940	74,810

Thus, we are 95-percent confident that the projected enrollment is between 73,940 and 74,810.

ACTUAL STUDENT ENROLLMENT

To verify the accuracy of the school department's actual student enrollment as of December 31, 1975, we used a two-stage stratified cluster sample. (See p. 10.)

The first stage involved dividing all 164 Boston public schools by school level and then randomly selecting a sample from each level. Our sample consisted of 10 high schools, 14 middle schools, and 36 elementary schools. The size of the sample was determined to provide a 95-percent confidence level with a maximum tolerable sampling error of 1,000 students.

The second stage involved randomly selecting about 2,000 students--a specific number was selected from each school selected in the first stage.

Comparison by Race of Actual Enrollment with Our Sample

	Enrollment for school system	Percent	Enrollment at schools reviewed	Percent	Sample	Percent
White	30,626	46	13,570	39	836	39
Black	28,588	42	10,350	50	969	46
Other	7,932	12	3,006	11	321	15
Total	67,146	100	26,926	100	2,126	100

We reviewed attendance records of the 2,126 students in our sample to determine whether they were attending school regularly. Using the formula presented on page 33, we determined the number of students in the universe who were actually enrolled.

The results of our sample using the same criteria as the school department are as follows.

Estimate	Sampling error	Range Low	Range High
66,163	± 1,355	64,808	67,146

The figure of 67,146 is used as the high range figure because it is the total number of students enrolled. Thus, we are 95-percent confident that the actual enrollment is between 64,808 and 67,146.

The results of our sample using the same criteria as the school department but excluding students who were not regularly attending school and including students who were attending school but were not counted in the school department's figure are as follows.

Estimate	Sampling error	Range Low	Range High
65,722	± 1,630	64,092	67,352

Thus, we are 95-percent confident that the actual enrollment is between 64,092 and 67,352.

DISCHARGED STUDENTS

To verify the accuracy of the figure of 12,124 students discharged from the Boston public school system as of December 31, 1975, we randomly selected a sample of 357 of these students. (See p. 15.) The sample size was determined to provide a 95-percent confidence level with a maximum tolerable sampling error of 500 students. To determine the sample size, we used the formula presented on page 32.

Comparison by Race of Students Discharged with Our Sample

	Universe	Percent	Sample	Percent
White	7,833	65	223	63
Black	2,907	24	83	23
Other	1,384	11	51	14
Total	12,124	100	357	100

We reviewed the sample to determine the number of students who did not meet the school department's criteria for a student discharged from the school system. By using the results of the sample and the formula presented on page 33,

we were able to estimate the number of students who did not meet these criteria in the universe.

STUDENTS NOT REPORTING TO SCHOOL

To verify the accuracy of the Boston public schools' December 31, 1975, listing of 2,454 students who did not report to school, we randomly selected a sample of 200 of these students. (See p. 16.) The sample size was determined to provide a 95-percent confidence level with a maximum tolerable sampling error of 500 students. To determine the sample size, we used the formula presented on page 32.

Comparison by Race of Students not Reporting to School with Our Sample

	Universe	Percent	Sample	Percent
White	1,528	62	120	60
Black	560	23	45	22
Other	366	15	35	18
Total	2,454	100	200	100

Students in our sample who attended Boston public schools were considered invalid. The results of the sample were used with the formula presented on page 33 to estimate the total number of students in the universe who did not report to school as of December 31, 1975.

ATTENDANCE

To verify the accuracy of attendance reported by the Boston public schools, we sampled and analyzed attendance for classes (reporting units) in 58 schools. (See p. 20.) These were generally the same schools we selected for verifying actual enrollment. At each school, we randomly selected five classrooms and verified the reported attendance for a randomly selected day between September 8, 1975, and December 19, 1975. (September 22-29, 1975, was excluded because of the teacher strike and consequent incomplete attendance records.)

When a sample school had fewer than 10 classrooms, we analyzed the attendance of all classrooms. If a school had disposed of its 1975 daily attendance records, we selected an analysis date in January or February 1976. All randomly selected reporting units and days of attendance were made from a table of random numbers.

APPENDIX V

ACTUAL ENROLLMENT FOR GRADES 1-12 REPORTED BY BOSTON PUBLIC SCHOOLS BY SCHOOL DISTRICT AND RACIAL GROUP AS OF DECEMBER 31, 1975

School district	Total students	Racial group and percent					
		White	Percent	Black	Percent	Other	Percent
Brighton-Mission Hill	5,332	1,860	35	2,077	39	1,395	26
Jamaica Plain	5,594	1,891	34	2,646	47	1,057	19
West Roxbury	7,049	3,086	44	3,649	52	314	4
Hyde Park	5,896	2,849	48	2,901	49	146	3
Dorchester	11,553	4,024	35	6,770	59	759	6
South Boston	6,975	3,535	51	2,532	36	908	13
Madison Park	5,601	1,748	31	2,346	42	1,507	27
East Boston	4,053	3,802	94	151	4	100	2
Citywide	15,093	7,831	52	5,516	36	1,746	12
Total for districts	67,146	30,626	46	28,588	42	7,932	12

ACTUAL ENROLLMENT FOR GRADES 1-12 REPORTED BY

BOSTON PUBLIC SCHOOLS BY SCHOOL DISTRICT, SCHOOL LEVEL,

AND RACIAL GROUP AS OF DECEMBER 31, 1975

School district	High school level				Middle school level				Elementary school level			
	White	Black	Other	Total	White	Black	Other	Total	White	Black	Other	Total
Brighton-Mission Hill	623	454	256	1,333	583	637	404	1,624	654	986	735	2,375
Jamaica Plain	261	423	183	868	642	861	304	1,807	988	1,362	569	2,919
West Roxbury	551	524	19	1,094	1,100	1,203	100	2,403	1,435	1,922	195	3,552
Hyde Park	773	621	14	1,408	715	782	35	1,532	1,361	1,498	97	2,956
Dorchester	749	1,756	91	2,596	1,201	1,706	219	3,126	2,074	3,308	449	5,831
South Boston	741	464	66	1,271	922	784	257	1,963	1,872	1,284	585	3,741
Madison Park	543	500	163	1,206	413	588	406	1,407	792	1,258	938	2,988
East Boston	1,233	36	15	1,284	1,114	40	30	1,184	1,455	75	55	1,585
Citywide	5,650	3,650	1,110	10,410	581	570	156	1,307	1,600	1,296	480	3,376
Total for districts	11,124	8,428	1,918	21,470	7,271	7,171	1,911	16,353	12,231	12,989	4,103	29,323
Percent	52	39	9	100	44	44	12	100	42	44	14	100

APPENDIX VI

APPENDIX VII

COMPARISON OF THE RACIAL COMPOSITION REPORTED BY BOSTON PUBLIC SCHOOLS WITH GAO'S COMPUTED ESTIMATE OF ACTUAL ENROLLMENT AS OF DECEMBER 31, 1975

School district number	High schools	Percent of students enrolled per School department				Percent of students enrolled per GAO estimate			
		White	Black	Other	Total	White	Black	Other	Total
6	L Street Annex	49	44	7	100	49	48	3	100
6	South Boston	62	33	5	100	64	30	6	100
7	Charlestown	71	24	5	100	76	19	5	100
7	Roxbury	6	68	26	100	7	67	26	100
8	East Boston	96	3	1	100	96	3	1	100
9	Boston High	47	39	14	100	41	44	15	100
9	Boston Latin	79	12	9	100	79	12	9	100
9	Boston Tech	57	33	10	100	59	31	10	100
9	Boston Trade	34	58	8	100	35	57	8	100
9	Madison Park	34	57	9	100	24	66	10	100
	Middle schools								
2	T. Roosevelt	39	48	13	100	38	48	14	100
3	Lewenberg	41	57	2	100	35	63	2	100
3	Shaw	42	53	5	100	41	54	5	100
5	Champlain	39	54	7	100	39	54	7	100
5	Wilson	40	56	4	100	40	56	4	100
6	Dearborn	35	54	11	100	31	57	12	100
6	Gavin	51	40	9	100	52	39	9	100
6	McCormack	46	34	20	100	45	37	18	100
7	Blackstone	19	43	38	100	16	45	39	100
7	Timilty	15	62	23	100	11	65	24	100
8	Adams	96	2	2	100	96	2	2	100
8	Barnes	93	4	3	100	92	4	4	100
9	King	46	44	10	100	46	44	10	100
9	Mackey	44	41	15	100	44	41	15	100
	Elementary schools								
1	Baldwin	37	37	26	100	37	37	26	100
1	Farragut	47	24	29	100	47	24	29	100
1	McKinley	36	45	19	100	36	45	19	100
1	Hilmore	28	43	29	100	26	44	30	100
1	Oak Square	35	37	28	100	35	37	28	100
1	Tobin	19	35	46	100	19	36	45	100
2	Abrahams	41	45	14	100	41	46	13	100
2	Agassiz	34	45	21	100	34	45	21	100
2	Bowditch	35	38	27	100	35	38	27	100
2	Longfellow	48	43	9	100	46	44	10	100
2	Manning	42	51	7	100	42	51	7	100
2	Seaver	49	42	9	100	48	43	9	100
3	Bates	46	47	7	100	46	47	7	100
3	Barron	46	53	1	100	46	53	1	100
3	Morris	39	60	1	100	37	62	1	100
3	Sumner	50	42	8	100	52	40	8	100
4	E. Greenwood	56	43	1	100	55	44	1	100
4	Hemenway	45	52	3	100	45	52	3	100
5	Fifield	36	53	11	100	36	53	11	100
5	S. Greenwood	38	60	2	100	36	61	3	100
5	Holland	29	57	14	100	30	56	14	100
5	Murphy	56	35	9	100	55	37	8	100
5	Stone	31	60	9	100	32	59	9	100
6	Bigelow	62	35	3	100	64	33	3	100
6	Emerson	21	45	34	100	21	46	33	100
6	Fenwick	18	37	45	100	19	35	46	100
7	Bunker Hill	40	34	26	100	38	35	27	100
7	Carter	17	74	9	100	17	74	9	100
7	Kent	24	35	41	100	24	35	41	100
7	Lincoln/ New Quincy	24	35	41	100	24	34	42	100
7	Quincy	12	40	48	100	12	41	47	100
8	Bradley	90	8	2	100	90	8	2	100
8	Lyman	86	8	6	100	86	8	6	100
8	Otis	98	2	0	100	98	2	0	100
9	Guild	56	42	2	100	59	39	2	100
9	McKay	59	36	5	100	58	37	5	100

APPENDIX VIII

SCHOOLS WHOSE RACIAL COMPOSITION DID NOT MEET THE FEDERAL COURT ORDER GUIDELINES IN ONE OF THREE RACIAL CLASSIFICATIONS

School district number	High schools	Percent of students enrolled (note a) White	Black	Other	Total	Range of racial percentages allowed by court order White	Black	Other
6	South Boston	62	33	* 5	100	40-66	25-41	10-18
	Middle schools							
3	Shaw	42	* 53	5	100	42-70	29-49	4- 6
6	Gavin	51	40	* 9	100	40-66	25-41	10-18
5	Wilson	40	56	* 4	100	34-56	36-60	5- 9
6	McCormack	46	34	*20	100	40-66	25-41	10-18
	Elementary schools							
1	Farragut	47	* 24	29	100	33-55	25-41	17-29
1	McKinley	36	* 45	19	100	33-55	25-41	17-29
2	Agassiz	34	45	*21	100	34-56	30-50	11-19
2	Bowditch	35	38	*27	100	34-56	30-50	11-19
2	Longfellow	48	43	* 9	100	34-56	30-50	11-19
2	Seaver	49	42	* 9	100	34-56	30-50	11-19
3	Bates	46	47	* 7	100	42-70	29-49	4- 6
3	Sumner	50	42	* 8	100	42-70	29-49	4- 6
4	E. Greenwood	56	43	* 1	100	46-76	26-44	3- 5
5	Fifield	36	53	* 11	100	34-56	36-60	5- 9
5	S. Greenwood	38	60	* 2	100	34-56	36-60	5- 9
5	Murphy	56	* 35	9	100	34-56	36-60	5- 9
5	Stone	* 31	60	9	100	34-56	36-60	5- 9
6	Bigelow	62	35	* 3	100	40-66	25-41	10-18
8	Bradley	90	* 8	2	100	71-100	2- 4	1- 3
8	Otis	98	2	* 0	100	71-100	2- 4	1- 3

a/Based on school department enrollment data as of December 31, 1975.

*Represents the racial group not meeting the Federal court order guidelines.

APPENDIX IX

SCHOOLS WHOSE RACIAL COMPOSITION DID NOT MEET THE FEDERAL COURT ORDER GUIDELINES IN TWO OF THREE RACIAL CLASSIFICATIONS

School district number	High schools	Percent of students enrolled (note a) White	Black	Other	Total	Range of racial percentages allowed by court order White	Black	Other
6	L Street Annex	49	* 44	* 7	100	40-66	25-41	10-18
7	Roxbury	* 6	* 68	26	100	30-50	26-44	19-31
	Middle schools							
6	Dearborn	* 35	* 54	11	100	40-66	25-41	10-18
7	Blackstone	* 19	43	* 38	100	30-50	26-44	19-31
7	Timilty	* 15	* 62	23	100	30-50	26-44	19-31
	Elementary schools							
1	Milmore	* 28	* 43	29	100	33-55	25-41	17-29
1	Tobin	* 19	35	* 46	100	33-55	25-41	17-29
2	Manning	42	* 51	* 7	100	34-56	30-50	11-19
3	Barron	46	* 53	* 1	100	42-70	29-49	4- 6
4	Hemenway	* 45	* 52	3	100	46-76	26-44	3- 5
5	Holland	* 29	57	* 14	100	34-56	36-60	5- 9
6	Fenwick	* 18	37	* 45	100	40-66	25-41	10-18
7	Kent	* 24	35	* 41	100	30-50	26-44	19-31
7	Lincoln/ New Quincy	* 24	35	* 41	100	30-50	26-44	19-31
7	Quincy	* 12	40	* 48	100	30-50	26-44	19-31
8	Lyman	86	* 8	* 6	100	71-100	2- 4	1- 3

a/Based on school department enrollment data as of December 31, 1975.

* Represents the racial group not meeting the Federal court order guidelines.

APPENDIX X

SCHOOLS WHOSE RACIAL COMPOSITION DID NOT MEET THE FEDERAL COURT ORDER GUIDELINES IN ANY RACIAL CLASSIFICATION

School district number	High schools	Percent of students enrolled (note a) White	Black	Other	Total	Range of racial percentages allowed by court order White	Black	Other
7	Charlestown	71	24	5	100	30-50	26-44	19-31
9	Boston Trade	34	58	8	100	46-56	b/44-54	
9	Madison Park	34	57	9	100	46-56	b/44-54	
	Middle schools							
3	Lewenberg	41	57	2	100	42-70	29-49	4- 6
9	Mackey	44	41	15	100	46-56	b/44-54	
	Elementary schools							
3	Morris	39	60	1	100	42-70	29-49	4- 6
6	Emerson	21	45	34	100	40-66	25-41	10-18
7	Carter	17	74	9	100	30-50	26-44	19-31
9	McKay	59	36	5	100	46-56	b/44-54	

a/ Based on school department enrollment data as of December 31, 1975.

b/ Citywide district school combined black and other minorities.

APPENDIX XI

RACIAL COMPOSITION OF BOSTON SCHOOL DISTRICTS

(By percentage)

School district number	Projected enrollment per Federal court order (note a)				Actual enrollment per Boston School Department (note b)			
	White	Black	Other	Total	White	Black	Other	Total
1	44	33	23	100	37	37	26	100
2	45	40	15	100	36	45	19	100
3	56	39	5	100	46	49	5	100
4	61	35	4	100	51	47	2	100
5	45	48	7	100	38	55	7	100
6	53	33	14	100	52	35	13	100
7	40	35	25	100	33	40	27	100
8	95	3	2	100	94	3	3	100
9	52	36	12	100	52	36	12	100

a/Data as of April 10, 1975, for grades K through 12 and 1 year postgraduate school.

b/Data as of December 31, 1975, for grades K through 12.